

REMARKS/ARGUMENTS

Favorable reconsideration and allowance of the present application is respectfully requested. Claims 1-21 are pending in the above application, of which, claim 1 is independent.

The Office Action dated February 3, 2010, has been received and carefully reviewed. In that Office Action, claims 1-21 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In addition, claims 1-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shibagaki in view of a machine translation of JP 2002-295991 (hereinafter, "Ozawa"), claims 1-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shibagaki in view of an English language abstract of CN 1305086 (hereinafter "Tetsu"), and claims 20 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shibagaki and Tetsu and further in view of Evans. It is believed that all claims patentably distinguish over the art of record, and reconsideration and allowance of all claims is respectfully requested in view of the following remarks.

REJECTIONS UNDER 35 U.S.C. 112, SECOND PARAGRAPH

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claim 1 recites, inter alia, that "the cohesive join is indirectly exposed to the flow of the first fluid." The Office Action indicates that it is not clear from this statement "whether applicant is claiming that the join is exposed or not exposed to the fluid." It is respectfully submitted that claim 1 indicates that a join is exposed to a fluid. Adding the adverb "indirectly" before the word "exposed" modifies the verb "exposed" and provides

additional information about the nature of the exposing. However, there is no basis in the rules of claim interpretation or English grammar for finding that the phrase "indirectly exposed" covers situations where no exposure occurs. It is respectfully submitted that claim 1 is definite and that there is no basis for interpreting the phrase "indirectly exposed" as covering situations where no exposure occurs.

Submitted herewith is a dictionary definition of the word "expose" from Merriam-Webster Online (www.merriamwebster.com) which includes the following relevant definition of "expose": "to submit or make accessible to a particular action or influence." Also submitted herewith is a definition of the word "direct" from the same dictionary: "from point to point without deviation: by the shortest way"; "from the source without interruption or diversion." From these definitions (and the specification which uses these terms consistently with their ordinary meanings) it is respectfully submitted that one ordinary skill in the art would understand the phrase "indirectly exposed" to refer to an exposure that is not a direct exposure. For example, a fluid flow exits connection piece 6 and impinges against cohesive connection 11. Cohesive connection 11 is directly exposed to the fluid flow. Cohesive connection 12, on the other hand, is only exposed to the fluid flowing from connection piece 6 after the flow has traveled through one of the passageways 1 and changed directions inside fourth delimiting element 5 to impinge against the join. Such exposure is not direct because of the intervening elements guiding and diverting the flow.

In view of the above comments and enclosed documents, it is respectfully submitted that claim 1 is definite, and the withdrawal of the rejection under 35 U.S.C. 112, second paragraph, is respectfully requested.

If the rejection under 35 U.S.C. 112, second paragraph, is not withdrawn, it is respectfully requested that the examiner provide further arguments or evidence to show that one of ordinary skill in the art would interpret a join being "indirectly exposed" to a fluid as meaning that that join is not exposed to the fluid so that the basis for this rejection can be better understood.

REJECTION UNDER 35 U.S.C. 103(a)

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibagaki in view of either JP 2002-295991 ("Ozawa") or CN 1305086 ("Tetsu"). Claim 1 recites an apparatus for exchanging heat having a number of structural elements and cohesive joins between various ones of the elements. Claim 1 further recites that at least the connections in which material forming a cohesive join is substantially directly exposed to a flow of a first fluid comprise a first connecting material, and connections in which the material which forms a cohesive join is indirectly exposed to the flow of the first fluid comprise a second connecting material different than the first material. Shibagaki does not show connections in which a first material forming a cohesive join is substantially directly exposed to the flow of a first fluid and connections in which a second material which forms a cohesive join is indirectly exposed to the flow of the first fluid. Instead, only one type of material for forming a join is disclosed.

Neither of the secondary references show a join formed from a first material being directly exposed to a first fluid flow and a join made from a second, different, material being indirectly exposed to the first fluid flow. Instead, the different join materials disclosed in Ozawa and Tetsu are each exposed to a different fluid. No joins of different

material are exposed to "a first fluid" as recited in claim 1. Therefore, neither Ozawa nor Tetsu provides any reason to modify Shibagaki in the manner proposed in the Office Action. At most, the combination of references suggests that a second type of material should be used for joins that are not exposed to the first fluid at all.

The only basis for this rejection appears to be the examiner's interpretation that "indirectly exposed" means "not exposed at all." It is respectfully submitted that this interpretation is not consistent with the ordinary meanings of the claim terms or common English grammar. For at least these reasons, the rejection of claim 1 is respectfully traversed, and it is respectfully submitted that claim 1 is allowable over the art of record.

If the rejection of claim 1 is maintained, it is respectfully submitted that issues for appeal would be clarified if the examiner confirms what interpretation of "indirectly exposed" is being used to reject these claims. It is respectfully requested that the examiner confirm, if correct, that the examiner is interpreting "indirectly exposed" to mean "not exposed at all." Furthermore, it is respectfully requested that the examiner indicate whether claim 1 would appear to be allowable over the applied references if "indirectly exposed" requires an exposure as argued by Applicant above.

Claims 2-21 depend from claim 1 and are submitted to be allowable for at least the same reasons as claim 1.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibagaki in view of Tetsu and further in view of Evans. Claims 20 and 21 depend from claim 1. Evans does not address the shortcomings of Shibagaki and Tetsu

discussed above in connection with claim 1. Claims 20 and 21 are therefore submitted to be allowable for at least the same reasons as claim 1.

CONCLUSION

Each issue raised in the Office Action dated February 3, 2010, has been addressed, and it is believed that claims 1-21 are in condition for allowance. Wherefore, reconsideration and allowance of these claims is earnestly solicited. If the examiner believes that any additional changes would place the application in better condition for allowance, the examiner is invited to contact the undersigned attorney at the telephone number listed below.

Deposit Account Authorization

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 50-3828 and please credit any excess fees to such deposit account.

Respectfully submitted,



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